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(4)

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		LOCATION:	RESTRICTED:
RECORD GROUP:	Richard S. Maclean		
ACCESSION NO:	99-38		
BOX NO:	3		
CONTENTS:	Tamaleque		
FILE NO:	from Box 16		

COMMENTS:

News Release Tamaleque Ynd.
Ancient Mayas Article + Mexico
Article removed to
separate folders

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CONTENTS:	TAMAULIPAS		
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COMMENTS:

Removed to PERMIT file a 5 page agreement
in Spanish that appears to give RSM
permission to conduct an archaeological
exploration dated 26 August 1963 (?)



SERVICIO CARDENAS

Distribuidor Exclusivo de BARDAHL Aditivo para Lubricantes

MECANICA SOLDADURA

AUTOGENA Y ELECTRICA

DESTAPAMOS :: ACOPLAMOS :: REPARACION Y VENTA DE

RADIADORES

MUELLES, ASILENCIADORES, TUBOS DE MOFLE Y VALVULAS DE ESCAPE
SOLDAMOS ALUMINIO ANTIMONIO ETC. TRABAJO GARANTIZADO

REFACCIONARIA "LA ESTRELLA"

Cédula de Empadronamiento No. 797

GRASAS Y ACEITES IMPORTADOS

Prop. Roberto Abundio Cárdenas

Bravo 8 y 9

C. Victoria, Tamps, 2-9- de 1955

Sr. _____

Dom. _____

IMPRESO EN "EL HERALDO DE VICTORIA"

DEBE:

Por soldar
soport de
muelle y
ponerle una
placa de
refuerzo -- \$25.00
,,

CONFORME: _____

ZONE A1

ZONE A3

ZONE B1

ZONE B2,3 & 4

ZONE C1

ZONE C2

ZONE D1

ZONE D2

ZONE D4

ZONE E1

ZONE E2

ZONE F1

ZONE F2

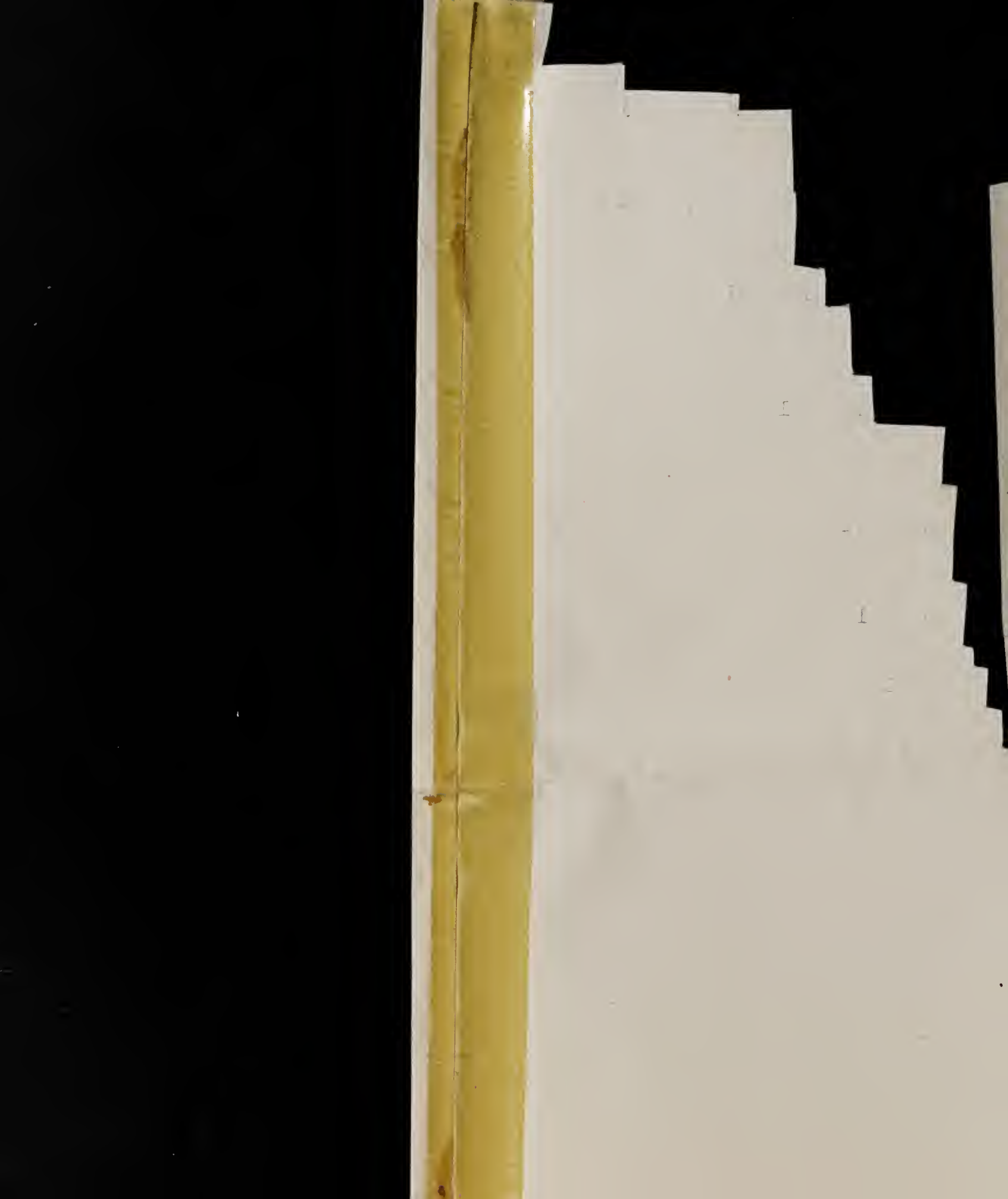
ZONE G

ZONE H

ZONE I

ZONE J

ZONE M



Final Field Report
3rd Tamaulipas Archaeological Ex
Dec 1953 - May 1954

Before discussing the results of the third Tamaulipas Archaeological Expedition of 1948-1949 it seems appropriate to first restate the purposes of these investigations. Briefly the problem studied was "the development of agriculture and concomitant development of civilization in Meso-America."

The area selected was southern Tamaulipas. ^(see map) The ^{is} was chosen for three reasons: first, it was sufficiently far north in Meso-America to be in the dry semi-desert area where preservation of archaeological material is excellent; secondly, the area is composed of limestone ~~and~~ mountains thereby containing numerous dry caves which were inhabitable and, also, allowed for preservation of the remains of any habitations, and finally, previous archaeological excavations in Tamaulipas had revealed a ^{part of which could be tied into the general Meso-American} long sequence of cultures. Of these reasons the final ^{developmental} ^{sequence} one was the most important.

Since ^{some of} these previous excavations were of such importance in the defining of the problem and in the selection of the area and since the results of the expeditions tie in with them, I shall briefly review them. ^{these pertinent}

These investigations had occurred in the dry Sierra de Tamaulipas about 120 miles northwest of Tampico, Tamaulipas, Mexico. Eleven small excavations had been made. Six of the sites excavated (Tm c 81, 82, 83, 174 and Tm ~~7~~ 79 and 86) were stratified—that is they had two or more different human occupations, one above the other, while the five remaining testings were in sites that seem to represent a single period of occupation. ^{FF} The earliest human remains consisted of four kinds of artifacts, big blades, side scrapers, large choppers and large boulder scrapers, in and under the high terrace gravels in one cave (Tm c 81). This ill-defined culture ^{assembly} is called the Diablo complex and the rather meager geological evidence indicates that these remains may be in late Pleistocene ^{may} and be more than 11,000 years old. Since such remains are stratigraphically the fourth culture below one dated by Carbon 14 as being 4,445 years old, such an early date does not seem improbable. The next culture in the sequence is called the Lerma Focus and remains of it were found in terra ~~vosa~~ soils just above the gravels in Tm c 81 and in the lowest layers of La Perra Cave (Tm c 174). This cultural manifestation is represented by a richer inventory of tools that include ^{double} double-pointed projectile

points; snub-nosed, stemmed, and large plano-convex end-scrapers; large and small flake side-scrapers; ovoid and square-based blades, and large choppers. Occupations seem to have been short and by small groups, while the variety of tools found indicate that hunting was of considerable importance. Dating of these remains ^{is} ~~are~~ not on a very secure basis but there is good evidence (zoological and soil analysis) to indicate that the people lived during a wet period and that this wet period was before a dry period which was before the Carbon 14 date of 4,445 years ago.

2. I have estimated that this occupation occurred in the Anathermal period some 7,000 to 9,000 years ago but ^{this estimate} such is entirely based upon the assumption that the wet and dry period of Tamaulipas are the same as those in the southwestern United States. The Nogales Focus materials occurred above these Lerma remains in Diablo Cave (Tm c 81) as well as in the bottom layers of Nogales Cave (Tm c 82). Nogales remains also have been found on the surface of about fifteen sites that were found in the survey in northern Tamaulipas up to the Rio Grande. Artifacts in this complex are numerous and characterized by leaf-shaped and sub-triangular points, gouges, disc scrapers, disc choppers, mortars, big blades and a wide variety of crude scraping tools. Occupations seem to have been by fairly large bands and of a

semi-permanent nature while the mortar fragments seem to
^{suggest}
~~have indicated~~ that food-gathering (as well as hunting)
was of considerable importance. ^{PP}Artifact trends and
similarities indicate that this Nogales Focus developed
into one called the La Perra Focus. This was particularly
apparent at Nogales cave where Nogales remains were
directly underneath those of the La Perra complex. However,
it was the middle levels (2-3) of the La Perra cave
(Tm c 174) that really gave us a more complete view of this
ancient material culture complex as these layers contained
much well-preserved vegetable materials and food remains.
Stone artifacts included concave-based triangular points
as well as sub-triangular and leaf-shaped ones, ~~the~~ disc
scrapers and flake side-scrapers, large chipped disc
choppers and hammerstones, mortars and pebble manos and
boulder metates. Perishable artifacts included maquey
string, atlatl mainshafts, full [?]turned coiled netting,
coiled basketry, pointed sticks, and checker and twilled
woven mats. Food remains revealed these people to have
been mainly food collectors (86% of the remains found were
wild plant or insect remains) who did some hunting (10%),
^{and a little agriculture as}
while ~~the agriculture products corn and squash remains~~
represented less than 4% of the food remains. Since the

earliest corn was primitive pod-pop types (called Early Nat-tel A^{and} B) directly ancestral to the most primitive of the modern ^{corn} Maya ^{corn} race (Nat-tel) and since ^{this stratum was} these were dated ^{at} as 4,445 years ago, it appeared possible that ⁱⁿ early well-preserved, La Perra or Nogales remains ^{could possibly have} still ^{more primitive} early corn types and perhaps some wild maize. ^{could be found.} Thus these remains led directly to our ^{interest in} ~~consideration~~ of the problem of the domestication of maize and the development of agriculture in Meso-America. [¶] Following the La Perra Focus (perhaps after ^a ~~some~~ considerable time) ^{elapse} was the Laguna Focus. This kind of remains occurred in the upper level of La Perra Cave, Layer 3 of Tm c 82, Levels 3, 4, 5 and 6 of the ruin Tm ~~r~~ 86 as well a number of single period ruins throughout the Sierra de Tamaulipas. (Tm ~~r~~ 88, 172, 197, 196 etc.)

NO [¶] This ^s focus showed a considerable advance over that of La Perra. It seems to be fairly similar to late ^F Formative remains throughout Meso-America, and on the basis of a host of traits to be intimately connected with Ekholm's El Prisco (Period II) remains at Panuco. ^{many} ~~A host of~~ new traits occur including pottery, El Prisco type figurines, stemmed and notched projectile points, manos and metates, lamellar flakes, loom-woven cotton, string ^{made} by a spindle whorl, and a whole series of architectural features including

pyramids, masonry house platforms, ball courts, etc.

Food remains reveal these people to have been basically agriculturists with over 50% of their diet being corn, beans, and squash. The corn, though including some of the older types, had modern Nal-tel (^{such as} like the Mayas still use) and two hybrid types Dzi⁺l-Bacal and Breve de Padilla.

The problem of how these new corn types were derived and how the cultural transition from La Perra to Laguna occurred was most perplexing. It was hoped that if the culture complexes (including preserved food remains) that existed between the La Perra and Laguna Foci could be

found, then this problem might be solved. The cultures following the Laguna Foci, ^{us, namely, the} Eslabones, and La Salta ^{Foci,} ~~were~~

^{are} developments from Laguna, ^{These foci and the focus,} and Los Angeles, a late intrusive ^{probably representing the material culture of the Pasitar tribe,} complex, need not concern us here for they are not directly connected with ~~the solution~~ ^{defining} of our problem.

Thus, ^{to contribute to the} ~~from the standpoint of the practical~~ solution of the problem of domestication of maize and development of high culture in at least one part of Meso-America, it appears ^{proyales} that it was necessary to find and excavate components ~~of~~ (the culture ancestral to La Perra) ^{proyales} or a ~~La Perra~~-like culture, further excavate La Perra or La Perra-like remains, and finally, to discover and dig those cultural complexes between

La Perra and Laguna. The logical place to find such ^{there} seemed to be in southern Tamaulipas near our 1949 excavations, and the probable place for finding such was ⁱⁿ rock shelter or caves where preserved remains usually occur. This was a big order but not an impossible one.

To do this job it was felt that first ^{an extensive} ~~a rather complete~~ survey should be made of southern Tamaulipas and that the survey should concentrate on discovering dry caves. After dry caves with preserved human materials were located, ~~it~~ ^{excavations and then} ~~was planned to excavate them~~ and then analysis of the materials would be made. Exactly how much of this could be done in a single season we did not know, ~~and the best we~~ ^{The most that could be} hoped ~~for~~ was that ~~we might be able~~ to find a few dry caves in the first season and excavate them, leaving the analysis for another season, ~~but it was not impossible that the~~ ^{and} ~~survey, excavation, and analysis would each take one season, with~~ ^{the analysis in the next year}

~~To do~~ ^{For} the survey David Kelley, a Harvard graduate student, and Peter Pratt, a graduate of the University of Toronto, were hired as assistants. Also a volunteer, Peter Grant, an amateur archaeologist from Winnipeg, Manitoba, joined the party. My wife also ^{was with} ~~joined~~ the party as a photographer and field supervisor. This group, starting in December, began a systematic survey of southern

Tamaulipas. In actual fact, one group with a jeep explored the southern Sierra de Tamaulipas, while the other confined its activities to the Sierra Madre in southwest Tamaulipas. The survey collected materials from 129 sites. These materials and information were added to the 220 sites that had been discovered in previous years, giving a total of 349, ~~but it was far from complete, as early in our survey we tested five caves that seemed worth digging.~~

The archaeological reconnaissance of the Sierra Madre netted sixty-six sites. Six of these sites were ruins that were similar to Ekholm's El Prisco (Period II) and yielded about 400 potsherds, 23 projectile points, four figurines, 3 fragments of manos and metates, and a few other artifacts. Beside the ruins three caves were tested that had the same kind of materials. Our testings uncovered only 45 sherds, 8 projectile points, 11 fragments of blades and scrapers. Ruins with remains like Ekholm's Zozquil (IV) phase ^{of Ponce} or Du Solier's Buenavista remains were much more frequent as we visited 26 ^{of this sort} and collected about 8,000 sherds, 25 figurines, 51 clay pipe fragments, 38 projectile points, as well as a number of other fragments of artifacts. Eleven rock shelters of this time period yielded about 32 sherds as well as flint

blades and projectile point fragments. Along the edges of the Sierra Madre, 9 Panuco (Ekholm's VI) period ruins ~~were located~~ occurred from which we took about 3,000 sherds, 5 pipes, 4 figurines, 75 lamellar flakes, 18 projectile points, and a number of other objects. Beside these single period sites with pottery, there were three ruins that appeared to have stratigraphy. About 850 sherds came from these sites as well as a few figurines (14), pipes (21), projectile points (9), lamellar flakes (7), and other objects. Two small open camp sites occurred with about 32 projectile points, 18 scrapers, 60 sherds, and other flint tools. Twelve other caves were visited but artifacts (less than 1000) were so scarce that they could not be classified as to period, nor were they worth digging. Four caves were, however, found to have definite stratigraphy and three of them had preserved vegetable remains.

Besides the 30 caves found in the reconnaissance, 22 were visited but found to contain no cultural remains and we heard of about 50 more that for one reason or another were not examined. Thus out of about 100 caves only the three with stratigraphy and preserved materials were ~~excavated~~ ^{worthy of excavation.} ~~of further investigation and were excavated.~~ These three will be described in a later part of

this paper.

In the Sierra de Tamaulipas, 63 sites were visited. Fifteen of them were Laguna Focus ruins with about 3,000 sherds, 42 projectile points, 2 celts, 4 figurines, and blade and scraper fragments. Three more with about 65 sherds, 12 projectile points and 6 blade fragments belonged to Eslabones Focus while one with about 18 sherds might be of the La Salta Focus. One site occurred that may be stratified with Laguna materials over an as yet undefined earlier ceramic complex. Here about 400 sherds occurred as well as ⁴four fragments of figurines, ⁵five projectile points, and ¹¹~~eleven~~ blade fragments. Beside these ruins about 1,000 sherds and 50 projectile points were collected from ten ruins and two camps that may belong to either the Laguna or Eslabones or La Salta complexes. Two ruins and a camp with about 300 sherds assignable to the Panuco Period (VI) occurred on the coast near the Sierra de Tamaulipas. About 200 sherds, ~~four~~ 4 projectile points, ¹¹~~eleven~~ scrapers, and a number of blade fragments were collected at open camps belonging to the Los Angeles Focus while four caves ^{yielded} ~~had~~ about 100 sherds and ³~~three~~ points, ~~of similar materials.~~ Three camp sites, ^{from which were collected} ~~with about~~ 52 projectile points, 75 blades, 14 scrapers, and 4 choppers belonged to the La Perra Focus, while one with about 9 points, 4 blades, and 7 scrapers, belonged to

the Nogales Focus and one with two points seems to be of ^{newly established} the ^{yielding a total of} Almagre Focus. Five camp sites with about 50 sherds and 20 points could not be classified. Six caves ~~were visited~~ that had a few artifacts (about 20 sherds and 5 points) also were unclassified, and about 15 caves were visited that contained no signs of human habitation. Four caves did have evidence of stratigraphy and ^{test pits in} two of these ~~which we excavated~~ ^{produced} had some preserved vegetable materials.

In summary, 129 sites were found in survey, including 54 cave sites. About 40 more caves were visited and we heard of over 75 more which were not visited. Of these sites one ruin was tested, 3 caves ^{were} dug with ^{which contained} vegetable materials but which added little to the solution of our problems, while but two had pertinent materials. Rough counts of the survey material revealed that about 18,000 sherds, 332 projectile points, 189 blades, 82 pipes, 55 figurines, 50 scrapers, 25 manos and metates, 6 mortars, 4 choppers, 3 celts, and about 500 other objects were collected.

Since the Sierra de Tamaulipas was better known and since we had established a long sequencethere, it was expected that in this region some of the answers to our

7, problem would most likely be found. Therefore, shortly after Cueva Hum^{da}~~ada~~ and Cueva Armadillo were discovered we began excavation in lieu of more archaeological reconnaissance.

Cueve Armadillo was a large cave with some rock fill in its center but along one edge was a level floor composed of refuse. In our first visit to the cave Peter Pratt and I sunk a test trench to a depth of two feet that revealed numerous superimposed lenses of refuse while a surface collection yielded Nogales, La Perra, Eslabones, and Los Angeles types of artifacts. This cave had very definite possibilities. Therefore during the month of March Peter Pratt excavated this cave.

This cave, numbered Tm c 314 in the survey, was most disappointing. It was found to contain not more than 2.6 feet of refuse in its deepest portion and to average about 1.5 feet of ancient debris. The vegetable ^{deposit}~~remains~~ ~~was~~ not deep, averaging about six inches, and its deepest portion was right where we had sunk our test trench. Furthermore, all the vegetable materials were associated with artifacts of the Los Angeles Focus, the latest in our Sierra de Tamaulipas sequence. Below the Los Angeles remains were some Pueblito

(Laguna, Estabon and La Salta)

materials that in places were over pre-pottery remains of either the Almagre or La Perra Foci. This ^{stratigraphic} was not clear-cut. About 300 sherds occurred with 50 projectile points, 75 scraper or blade fragments, ~~about 5 perishable objects,~~ ^(20 other artifacts) and about 100 bone fragments. The top level contained about 400 ~~floral~~ ^{pflora} specimens, including a few specimens of very late type corn.

The nearby Cueva Humada (Tm c 315) was equally misleading. Here our test trench during the survey had shown that there were more than three feet of ash that was full of pre-pottery remains of a new ^(Almagre) type cultural complex as well as those of La Perra with layers of charcoal and occasional fragments of vegetable materials. The cave looked like it ought to have deep pre-pottery refuse some of which ^{would be} ~~was~~ well preserved.

This was a narrow cave about 15 feet wide and 60 feet deep which had a small niche of refuse above the main floor in the back wall of the cave, a cave within a cave. I excavated the lower ^{(front) section} during the later part of March and early April and briefly tested the refuse in the upper ^(back) cave, much of which had been washed or fallen down on the floor of the lower cave. Excavation of nine five-foot squares revealed that near the mouth of the cave the refuse was about two feet thick but that this refuse became deeper to a depth

of six feet near the back of the cave. However, about
three^{feet}/of the refuse in the back section of the cave was
redeposited materials from the upper cave and only the
lower three feet were undisturbed. Also, though just
enough leaves and sticks occurred to encourage further
digging, there was no area of preserved refuse.

Preliminary sorting of materials reveal that lowest levels
of the cave have typical La Perra refuse which gradually
develop into a new complex, called Almagre, ^{occurring} ~~that occurred~~ in
the middle levels, while the upper level is redeposited
materials containing a mixture of both cultures. This
Almagre culture is particularly interesting since it not
only adds one more cultural complex to our sequence but
because ^{its} ~~the~~ contracting stemmed points are similar to those
of the Pecos River Focus of the Big Bend area of Texas, as
well as bearing resemblance to those of the earliest pottery
culture of this area, the Laguna Focus.

Thus for the Sierra de Tamaulipas the 1953-54 investi-
gation, besides adding 63 sites to the survey, had filled in
part of the gap between La Perra and Laguna, confirmed
part of the stratigraphy and had given us a fuller picture

of the Los Angeles Focus including food remains and some of the "perishable" artifacts. However, from the standpoint of the development of agriculture, it had added nothing new. I still cannot help but believe that this region is a crucial one and that more survey and more excavation of more caves that have preserved vegetable remains in them will turn up some very significant data on our problems.

On the following chart I have summarized the stratigraphy of the excavations so far and indicated the cultural foci and some of their salient characteristics.

Chart:-

While the excavations in the Sierra de Tamaulipas did not come up to expectations, those in the Sierra Madre, just to the southwest, far exceeded anything I had ~~ever~~ hoped for. Here excavations were begun by David Kelley and ^{me} ~~I~~ during the last week of January and continued to the 19th of April.

The first cave excavated, called Romero's Cave (Tm c 247), began in January and continued into part of March and was finished in the second week of April. It was a very large cave, being at the ^{mouth} about 60 feet wide and fifty feet high, while it extended ~~back a~~ distance of about 55 feet. The cave was situated at the base of a high cliff (300 feet high) and was about 1,000 feet above the valley floor. The western portion of the cave contained a good deal of rock fill that had evidently

^{fallen} since its formation, so excavation occurred in its eastern half. Here, ^{all in part of} ~~part of~~ 38 five-foot squares were ^{dug} ~~excavated~~ by stripping off long, narrow horizontal layers while standing against a vertical face. The actual digging was done by trowel in combination with a shovel, and all materials were screened. The deposits averaged about 3.6 feet thick, though in the back of the

cave in one spot they were almost five feet deep(4.93).

The stratigraphy was somewhat complex as there were 26 superimposed layers composed of either gravel, cave dust, charcoal, ash of various colours, brownish layers of decayed vegetable materials or preserved vegetable materials. Furthermore, a layer that would be thin in one part of the cave was thick in another, and some layers changed from being preserved vegetable layers to carbon, to ash, or ^{vice}~~vice~~ versa, as we peeled them off. Generally, the earlier layers (Zones D to K) were thick toward the back of the cave and were thin or disappeared to the front, while the later zones (A-C) were thin in back of the cave and got progressively thicker toward the front. However, the separation of one stratum from the next was fairly distinct and ^{relatively}~~fairly~~ easy to peel off, and the field notes and drawn or photographed profiles allow one to discern the sequence of strata and materials without much difficulty. On the following page may be seen a tentative chart and photograph showing the stratigraphy.

Chart and photograph:

Rough estimates reveal that we found about 2,000 sherds, 1,000 projectile points or fragments thereof, 300 scrapers, 150 blade fragments, 50 choppers, 700 mat fragments, 200 cigarette butts, 25 baskets, 500 pieces of string or rope, 200 wooden tools including arrow shafts, atlatl foreshafts, an atlatl and pounded pegs, 10 bone tools, 400 miscellaneous perishable artifacts, 12 burials, 4,000 corn cobs of various races, 20,000 other fragments of maize, 6,000 fragments of a number of varieties of squash, 7,000 fragments of various kinds of beans, about 100,000 other floral remains, and about 90 bone fragments. (Total about 140,000[±]10,000).

As yet very little analysis of these materials has been undertaken and most of the specimens are still not catalogued. Nevertheless, Dr. Mangelsdorf has examined some of the corn and other domesticated plants while I have separated the artifacts as well as watched them come out of the ground. Therefore, I believe a preliminary statement may be made concerning the sequence. The earliest cultural phase comes from Zone K2 just above the gravels in three squares in back of the caves. This earliest occupation, called the Infiernillo Complex, contained some wild foodstuffs and animal bones in association with diamond-shaped points, ^{large and small} leaf-shaped points, ~~leaf-shaped~~

points, leaf-shaped blades, large choppers, 2 large scraping planes and some checker woven and twilled mats and basket fragments. Occupations 2-5 (Zones G-J) make up the Portales Complex. Though wild foodstuffs predominate, a large number of various kinds of domesticated squash and bean fragments occurred. Strings, coiled rod and bundle baskets, nets, many checker-woven mats, some twilled mats, a possible atlatl, cane spears, cane atlatl main shafts, wooden atlatl foreshafts, a barbed wooden point, large triangular points, large and small leaf-shaped points, diamond-shaped points, one mortar, antler flakers, end and side scrapers, large choppers or scrapers, and a few large crude scraper planes, are salient features of this complex.

This Portales Complex seems to develop into the Guerra Complex of occupations 6 to 8 (Zones D3 to F2). Early Bat Cave type of maize and possibly gourds are now present with the squash and beans though wild foodstuffs still compose the greatest part of the diet. Projectile points have diminished in size with medium-sized triangular and leaf-shaped points predominating, though large triangular and leaf-shaped points occur along with large contracting

stemmed points (Langtry Stemmed?). Mats, baskets, string, rope, and atlatl dart fragments seem to be much the same as the previous period but scrapers are smaller and choppers are rare. Also one possible mano occurred.

The next phase of our sequence in occupation 9, Zone D7-2, shows a large number of new artifact types and perhaps there is a temporal gap between it (called the Mesa de Guaje Complex) and the Guerra Complex. Most of the corn in this level is like the later Bat Cave variety but some of it is like the earlier material and few cobs show evidence of hybridization with teocinte. Of even greater interest were a few grains of teocinte, a cross between *tripiscum* and primitive maize. This has never been found growing in eastern Mexico and ^{has} never ^{before} been recovered from archaeological deposits. Dr. Mangelsdorf has shown that ^{teocinte} ~~it~~ has been crossed with maize to improve the food capacity of that plant and I believe we ^{may} have ^{here} actual evidence of the importation (or breeding) of this grass for just that purpose. Besides the corn, gourds, beans, squash, and cotton are present and ^{are} about as numerous as the wild plant remains. A large number of feces from this strata also should tell us ^{upon analysis,} much about this ancient

Sp?

diet. In artifacts the most significant addition is pottery. A cursory study of it shows it to be very similar, if not the same, as Ekholm's El Prisco (Period II) sherds from Panuco, and therefore about the same time period as Laguna in the Sierra de Tamaulipas. Medium-sized triangular and leaf-shaped projectile points occur, along with large straight-stemmed and notched projectile points. Atlatl dart fragments still occur. Scrapers are relatively rare as are choppers and big blades. Cotton cloth (loom woven?), nets, string, net bags, baskets, and woven water bottles of a number of varieties, twilled mats with or without woven designs, and a number of wooden artifacts occur.

Beside the artifacts four burials belong to this @complex. ^{a joint burial,} Two of these₂ are facing each other with arms and legs interlocked and are above and below woven mat~~s~~ with baskets on top of them, while the other two were in deep grass-lined pits and wrapped in mats tied up with rope. These are as yet unopened. ~~I~~ I suspect that some of the ruins with El Prisco figurines and pottery from this area also belong to this Complex but we had no time to investigate them.

? The Palmillos[?] Complex occurred in Zones C1 and C2 and represented the tenth occupation of the cave. Pottery of this complex was quite distinct as it often was polished and bore engraved decoration. Projectile points were distinctive in that they were usually triangular in outline with serrated edges and side notches, but larger stemmed and corner-notched ones did occur as did a few small triangular ones. Mainshafts reveal that these points tipped arrows but a few shafts are sufficiently large to suggest atlatl darts or spears. Manos and metates were present as were fragments of clay pipes. However, one of the most distinctive features of this complex was cane cigarette butts. ~~but~~ Other perishables include mats with designs, baskets, nets, loom-woven cotton cloths with coloured designs, string, rope, net bags, woven bands, large *containers* ~~baskets~~ made with wooden rims and net bottoms, wooden pegs, and a number of other objects. Four burials were uncovered. The actual bodies and burial goods (including pottery) had been wrapped in a number of mats and bound tightly by rope and string. This bundle was then placed lengthwise in *the containers* ~~baskets~~ made with a net bottom and wooden hoop rim with a tumpline. It in turn with its contents was buried in a grass-lined pit covered with slabs of rock and refuse.

Agricultural products represented the bulk of the foodstuffs and included corn, beans, squash, gourds and chile, as well as tobacco and cotton. The corn probably can be divided into a number of races, most of which show teocinte ^{to} intergression.

The Palmillas Complex is almost identical to that found at Buenavista, San Luis Potosi, by Du Solier and closely related to Elholm's Zaquil (IV) period from Panuco. The majority of the ruins of southwest Tamaulipas and the ruin on the hill just above this cave were of this period.

In Zone B, occupation 11-13, was the San Lorenzo Complex. Zone B, though relatively thin in the back of the cave, represented the bulk of the refuse near the mouth of the cave and contained a number (5) ² layers or subdivisions. Pottery was fairly numerous and there are at least three kinds: a brushed ware, a smooth ware, and a corrugated ware (like some of the Southwest materials). Points were small and triangular, with or without side notches (and one has a side notch and a basal notch). Shafts show all to have been arrows and one possible fragment of a bow occurred. Mats, baskets, nets, string,

rope, cotton cloth, a spindle ^{whorl}, an elbow clay pipe, leather, leather bags, and part of a ^{leather} huarache were present along with a few large flat pebble scrapers or choppers. There were, also, a variety of worked wooden objects that I cannot ^{yet} identify as to use. ^{Maize} Corn was the dominant food but beans, squash, chile, gourds, and tobacco occurred with the wild food remains. One burial was found, ~~which was~~ flexed on its side in a pit without its head and with an arrow in its ribs. It was covered by a mat. Materials similar to this complex have been found in camp sites and in other caves and seem related (ancestrally?) to the Los Angeles complex of the Sierra de Tamaulipas.

The fourteenth and fifteenth occupation in ~~cave~~ of Zone A contained artifacts of the San Antonio Complex. Small triangular arrow points and arrowshafts occurred with crudely brushed and smoothed pottery. Scrapers and choppers are fairly common. Mats, baskets, nets, string, belts, braids, leather bags, and cotton cloth ^{are present,} also occur. Foodstuffs are predominately wild though corn, beans, squash, gourds, chile, and tobacco occur. Three bundle ^{were found} burials wrapped in mats occurred against the back wall of the cave. This complex seems to be related to Los Angeles Focus of the Sierra de Tamaulipas and modern glaze sherds

^{shards}
and Panuco Period (Ekholm's VI) show that it is very late and probably partly historic.

Materials from this cave gave us an outline of the sequence for this area and much data concerning the development of agriculture and "high culture" in this part of Mexico. The other excavations supplemented and confirmed this sequence.

David Kelley^{nearby} excavated the ¹second cave, Valenzuela's Cave (Tm c 248) and will be analysing those materials for his doctoral dissertation (and I will later re-analyse them for the final report). This excavation was undertaken during the last week of February, March, and the beginning of April and what I shall write here is based upon what Kelley showed me or told me.

The cave itself has a double entrance, ~~with~~ one being about 25 feet wide and 8 feet high, while the other is about 15 feet wide and 15 feet high. The small entrance contained a narrow high passage about 30 feet long, while the wide one opened onto a large room about 30 feet wide and 40 feet long. For the most part, refuse was shallow, not over 3 feet deep, and usually about 2 feet in depth, and the 34 five-foot squares dug did not ^{yield} ~~contain~~ large amounts

of materials. About 100 sherds ^{were numbered,} ~~occurred~~ with 60 points (or fragments thereof), 40 blades, 170 large flat scrapers or choppers, 30 scraping planes, 100 fragments of string or net, 20 mats or baskets, a bow, and about 30 other perishable artifacts. Foodstuffs include^d about 2,000 beans, ^{fragments, R} ~~(fragments)~~ 1,000 squash fragments, and about 25,000 wild plant remains.

Excavation by ^{the} stripping of horizontal layers from a vertical face revealed that there were eight layers and seven occupations. Layers 1 and 2 contained artifacts belonging to the San Antonio Complex. Beside having a number of artifacts like those of Tm c 247, there were a number of new types of matting, netting, a bow, and a bundle burial, as well as a child burial in sitting position wrapped in mats. Corn, beans, squash, and cotton appear along with predominately wild foods. Unfortunately, these later occupants of the cave dug a whole series of pits so earlier materials are found mixed in with these later ones. Layers 3 through 7 appear to have artifacts of the Portales Complex. It is my opinion that these five occupations start somewhat earlier and end somewhat later than ^{Portales} ~~those~~ of Tm c 247. I say this because in Valenzuela Cave in Layer 3 there are a number of Langty Stemmed Point fragments which appear with the Guerra Complex in Romero's

Cave, while the lowest levels of Valenzuela Cave have a large number of choppers, scraping planes and diamond-shaped points than does the Portales ^{deposit} of the nearby cave. In fact, it may be that analysis will justify the division of the Portales Complex into two complexes but ^{this} ~~such~~ is a problem for ^{the} future ~~work~~. Levels 5 to 7 have, besides stone materials, a number of ^{various kinds of} mats, baskets, nets, and string that do not appear at the other cave, as well as a large amount of bone material, fossilized and unfossilized (including some extremely large deer(?) teeth).

Though squash and beans are present in all these Portales levels, wild foodstuffs are dominant.

The final cave excavated, Tm c 247, was called Ojo de Aqua Cave and was dug during April. This cave was about 30 feet wide and 15 feet high at its mouth and extended back over 100 feet. Here eleven five-foot squares were removed to about a depth of six feet, though in one place refuse was seven feet deep. Originally we tried to strip off ^{the} actual strata but the layers were so confusing that most of the cave was dug in arbitrary six-inch levels. Level 1 contained a few San Antonio Complex sherds, while Levels 2 through 6 had Palmillas Complex artifacts as well as preserved vegetable materials, including some very well-made

pieces of loom woven cotton cloth. Levels 7 through 13 ^{were} ~~was~~
a complex series of lenses of ash and charcoal
areas that ^{extended for a} ~~appeared~~ and ^{and then faded out} ~~then a few feet away disappeared~~
or changed into another type of strata. This refuse
contained Portales Complex artifacts and, as in Valenzuela
Cave, the heavy choppers were more frequent at the bottom,
but here a pointed stemmed and large triangular points
also occurred. One hundred sherds ^{were in the deposit, as were} ~~occurred as did~~ about 75
projectile points, 10 blades, and about 150 choppers or
heavy scrapers, ~~while~~ Only about 25 perishable artifacts
were present. ^{There were about} ~~One thousand~~ ^{specimens of} food remains, including corn,
squash, beans, bone, and wild plant materials.

The final site excavated or tested was the ruin on
top of the hill above the cave near our camp. Here seven
test ^{Squares} ~~trenches~~ about 2 feet deep uncovered about 4,000 sherds,
points, pipe fragments, etc.

The investigations in the Sierra Madre, beside yielding
surface collections from 62 sites, reveal a sequence ~~of~~
of seven or possible artifact complexes. The following
chart reveals the correlation of various strata of the
caves and some of the characteristics of the cultural
complexes. This sequence tells us much concerning the

development of agriculture in at least one part of Mexico. On the earliest level there are no domesticated food plants, next we see the introduction of, ^{and perhaps} ~~or~~ domestication of, beans and squash. This is followed by the introduction of gourds and Bat Cave type of corn. At the time of the introduction of pottery, cotton, teocinte, and ^{new races} ~~other types~~ of corn appear. A still later horizon sees tobacco, and possibly chile, added to ^{the assemblage} ~~this host~~ of food plants. As may be seen from the accompanying chart, these changes in agriculture are accompanied by changes in the material culture. Thus we seem to have some data on the development of agriculture and concomitant development of civilization in at least one small part of Meso-America. How true this is of all of Meso-America can only be answered by ^{more detailed} ~~an~~ analysis and further studies.

^{what} ~~The question~~ now remains, ^{to} ~~what must~~ be done? First and foremost, the stratigraphy of the caves must be studied ^{more} ~~intensively~~ and the artifacts from each layer analysed and described. Furthermore, once the artifact types are established, they must be compared with those from other areas such as Coahuila, the Big Bend area of Texas, the Southwest, the

California desert, and the Great Basin area of the United States (and perhaps even Huaca P^yeta of the Peruvian coast).

Furthermore, ~~these artifacts must be arranged into artifact~~

~~complexes~~, representing the material culture of each occu-

pation, ~~Then these artifact complexes~~ must be compared

with one another to determine culture continuity (or the

lack of it) as well as compared with those from other areas,

in order to ascertain cultural relationships (migration,

diffusion, etc.) These studies are the normal activities

of archaeologists and I shall be doing this next year. *I will be assisted*

~~(though I expect to receive the assistance of~~ ^{by} David Kelley,

who will study Valenzuelas cave, ^{botanists and other} ~~and hints from specialists~~

~~on cotton weaving, basketry, string, and the like).~~

Much of what must be done is, however, out of the hands of the archaeologists. Dates of the occupations must

come from an analysis of the ^{organic remains} ~~radioactivity of Carbon 14~~

by ^{using the radiocarbon dating method.} Nuclear Physicists. [^] The ~~ancient~~ fauna of the various

occupations ^{will} ~~can only~~ be determined by analysis of bone

materials by zoologists. The soils of the various strata

should be studied by pedologists with an eye to ^{determining} ~~discovering~~

the ancient climate as well as the various agents of

deposition. The ~~ancient~~ flora of each occupation must be

studied by botanists familiar with the present plants of this region of Mexico as well as by specialists in pollen analysis. ^a ~~There should be further check on the previous~~
~~elimates.~~ Then there must be a number of studies by a series of specialists in economic botany. Studies of the sequence of corn, beans, squash, gourds, tobacco and chile (and maybe tomatoes) ~~which~~ ^{identify} should not only allow these specialists to ~~establish~~ new races (extinct?) of these domesticated plants but, also, ^{produce} ~~give~~ considerable data concerning the origin, evolution, or development of these ~~and~~ important food plants.

Already some arrangements have been made for these numerous specialists from other fields to examine our archaeological materials. Dr. Mangelsdorf, in fact, has already briefly looked at the corn, and a number of his ^{previous} hypotheses, based on genetic studies, seem to be verified by our data. His theory that Bat Cave corn is an early highland variant of maize and Primitive Nal-tel an early lowland variant, ^{supported by the} ~~is certainly true for Tamaulipas~~ ^{materials,} His idea that teocinte is crossed with corn to form modern races and that corn was domesticated for a considerable

length of time before this hybridization certainly is verified as far as the sequence of Romero's Cave is concerned. The antiquity of corn and possible origin of some corn in Mexico ~~is~~ suggested by Mangelsdorf certainly seems correct in terms of our sequence.

Eventually, all this mass of data from these numerous fields will have to be correlated and published. This I hope to do and I know I will thoroughly enjoy the task.

Beside the practical problems of finishing this study, the new archaeological data has given rise to a series of historical problems. Some of these may be solved with the analysis, but I'm sure even more questions will be turning up. On a specific level ^{there is} is the correlation of ^{the} the Sierra de Tamaulipas and ^{the} Sierre Madre of Tamaulipas sequence. ^{can see,} As one may ~~notice~~, the pottery periods of the two areas are roughly the same. ^{The major question concerns} ~~and the problems are concerning the~~ ^{of the two regions.} pre-pottery agriculture. In regards to material culture, La Perra of the Sierra de Tamaulipas and Portales of the Sierre Madre are very similar and certainly closely related but La Perra ^{the primitive maize of} ~~has primitive corn~~ ^{is} less primitive than that of the Guerra ^{which} Culture ^s following Portales. Are Portales and La Perra contemporaneous or is La Perra a very long period

The first of these is the fact that the
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starting at the same time as Portales and extending
after Guerra, ^{receiving} ~~and getting~~ corn after Guerra? ^{times?} Why were there
no beans in La Perra? If the Bat Cave corn is 5,600 years
old and La Perra is 4,445 years old according to Carbon 14
dating, how old are the Guerra and Portales materials? The
corn materials would certainly suggest ^{they are} ~~it is~~ earlier, but
is this true? In fact, just how old is this first bean
and squash agriculture? How ^{does it happen} ~~come~~ that tobacco, and the bow
and arrow are older in New Mexico, a seemingly peripheral
area, than in Mexico, one of the centers of New World
civilization? If ~~Marx, Engels, V. Gordon Childe, Leslie White,~~

and the other economic determinists are correct that ^{food}
~~domestication is the basis of~~ ^{provides the base for}
~~agriculture is one of the basic causes of~~ a neolithic
^{manifested in the great surge of elaboration and complexity in human society + culture,}
~~revolution, a rapid change in material culture,~~ how is it

that in Tamaulipas ^{maize} corn, beans and squash agriculture
^{apparently} seemingly existed for thousands of years without ^{breaking} ~~great cultural~~

^{important cultural development,}
~~material changes,~~ and that when ^{as a} ~~this~~ "neolithic revolution" ^{did}

^{in this area (represented by Laguna remains)}
~~occurred~~ it was not accompanied by the introduction of

[?]
~~significant new agricultural products?~~ These are but a few

of the problems that come to my mind as I write the final

field report. Perhaps our materials ^{hold} ~~contain~~ some of the

answers and further study will reveal them, but I am

^{some} afraid ~~many~~ of these queries will go unanswered and ^{that} further study of our present data may ^{pose} reveal many more.

However, I believe that our present investigation ^{has made a significant} of the ^{Contribution to the} problem of "the development of agriculture and concomitant development of civilization in Meso-America" ~~has brought~~ to light considerable relevant information that will have bearing on its ultimate solution and that ~~perhaps~~ when our study is completed we will be able to define in more concise terms ^{some of} the multitude of ^{subsidiary} ~~smaller~~ problems that surround ^{this} the major one.

~~Why doesn't happen that there is~~
~~also it happen the development of~~
How come that, village life and a noticeable ^{a predominantly agricultural economy,}
^{at the same time} population increase ~~large as for Belgium~~ ^{is so slow in coming after the establishment}
~~of plant domestication?~~ ^{of plant domestication?} Is this true of all of Mexico (or
the rest of the world)?

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Grand Total 197,061

19246

41025

19246

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1,400

400

200

100

225

200

500

400

100

4000

6000

7000

20,000

100,000

137,000

100

50

50

200

100

20

30

2000

1000

25,000

100

28,000

75

150

10

25

1,000

300

95

450

300

50

75

25

995

450

30,561

500

166,500

Survey of artifacts

Tm c 246

247

points

scraper + blades

crayon-like

malts

baskets

wooden bowl

shaving or rope

ash or leaf

bone

corn cobs

spoon

beams

corn frog

vegetable

shells

points

blades etc

scraper + chopper

shaving + net

malts

ash or leaf

beams

spoon

ash or leaf

shells

points

blades + scraper

chopper

ash or leaf

beams

points

scraper

blades

shells

points

blades

ash or leaf

248

274

315

316

6-9

2-5

45-49	4	2-2	✓ 1	1	1	1
55-58	19	9-4-14-2-1-19	✓ 9	2-6-1	6-1-2	9
59-63	17	1-10-12-12-13	✓ 7	5-2	5	5
15-17-19	25	8-1-1-5-1-7-2	✓ 7	1-1-2-3	3-2-1-1	7
30-31	4	4	✓			0
13-14	54	31-10-7-6	X 11	3-3-1-4	4-1-3-3	11
32-34, 36, 37	33	1-10-1-1-10	✓ 1	1	10	1
25	3	1-2	✓ 5	1-4	4-1	5
53-54, 64	16	2-2-6-1-1-4	✓ 18	6-9-1-2	1-6-9	16
51-52	6	6	✓			
10-11	8	1-7	✓ 6	2-2-2	2-2-2	6
27-29	1	1	✓			
16	8	1-7-3	X ✓ 8	1-2-5	5-2-1	9
35+38	4	3-1	X ✓ 4	4	4	4
12-26	2	2	✓ 13	4-1-8	8-5	13

1-6	109	89-3-10-3-4	14-89-6	✓ 27-2	4-19	19-4-2-27	52
7-7	113	73-1-12-20-5-2	15-91-7	✓ 13	6-1-5	5-1-6-13	25
20-24	65	3-3-23-16-20	6-63	✓	2-2	2-2	4
39-44	3	3		✓	2-4	4-2	6

1- Cent
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temporal

141

43
16
6
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98
15
113

90
187

<u>Zone</u>	<u>Content</u>	<u>area</u>	<u>occupation</u>	<u>Period</u>
Zone A.1	- Dark + veg.	- whole cave	occupation 15	San Antonio
Zone A.2	- ash	- back of cave		San Antonio
Zone A.3	- veg. carbon layer	- back of cave	occupation 14	San Antonio
Zone B.1	- ash layer	- back of cave		San Lorenzo
Zone B.4	- veg layer	- whole cave	occupation 13	
Zone B.3	- ash lense	- Front of cave		
Zone B.4	- veg layer	- Front of cave	occupation 12	
Zone B.5	- gray ash. charcoal floor	" "	occupation 11	
Zone C	- ash layer	- whole cave		Palmitos
Zone C.13	- veg layer + charcoal layer	- whole cave	occupation 10	
Zone D.1	- ash layer	- back of cave		Mesas de la Sierra
Zone D.2 ^{4A}	- veg layer	- back of cave	occupation 9	
Zone D.3	- ash lenses	- parts of back of cave		
Zone D.4 ^{4B}	- veg layer	- part of back of cave	occupation 8	
Zone E.1	- ash	- back of cave		Sierra
Zone E.2	- veg or carbon	- whole cave	occupation 7	
Zone F.1	- ash or brown ash	- whole cave		
Zone F.2	- veg floor	- back of cave	occupation 6	
Zone G. (2)	- ash with veg material	- back of cave	occupation 5	Portales
Zone H. 3	- brown veg material	- whole cave	occupation 4	
Zone I. 4	- ash layer + veg	- back of cave	occupation 3	
Zone J. 10	- veg layer	- back of cave	occupation 2	
Zone K.1	- thin ash lense	"		Portales
Zone K.2	- veg layer	"	occupation 1	
Zone X	- ash + burned area	- Front of cave under Zone H		Guerra or Portales
Zone M	- gravel			

15

~~1800s Pol. & Literature~~

Dear Mr. [illegible]

4

4

~~10. 1. 1900~~

4

